

MC100 Series

Fast Ethernet Media Converters

AT-MC101XL

TX to FX Fast Ethernet media converter with multi-mode ST fiber connectors

AT-MC102XL

TX to FX Fast Ethernet media converter with multi-mode SC fiber connectors

AT-MC103XL

TX to FX Fast Ethernet media converter with single-mode 15 km SC fiber connectors

AT-MC103LH

TX to FX Fast Ethernet media converter with single-mode 40 km SC fiber connectors

AT-MC104XL

FX multi-mode to FX single-mode with SC fiber connectors



Fiber Connections

The Allied Telesis range of Fast Ethernet media converters provides a complete family of conversion devices, allowing users to extend the size of UTP networks with the use of fiber cabling. Supporting both SC and ST fiber connectors, MC100 Series converters can be used to extend networks with up to two km of multi-mode fiber or 40 km of single-mode fiber.

Simple Installation

All the media converters feature auto MDI/MDI-X, allowing the converter to be connected to either a PC, hub or switch with a simple UTP cable. The media converters also allow the installer to test the integrity of fiber connection, by forcing the converters to communicate over the fiber cable. This "Link Test" feature allows installers to check for cable faults without the need for expensive fiber-optic test equipment.

Standalone or Rackmounted

Each small media converter is powered by an external power supply unit for use in standalone applications. Where multiple media converters are being used, up to 12 standalone devices can be inserted into a low-cost rackmount chassis, allowing all

the converters to be powered by a single internal power supply. In critical applications, a second load sharing internal power supply can be installed into the rackmount chassis.

Hassle-Free Support

Allied Telesis Fast Ethernet media converters include free technical support, ensuring trouble-free installation.

Link Test

The link test is a fast and easy way for you to test the connections between the media converter ports and the end nodes that are connected to the ports. If a network problem occurs, you can perform a link test to determine which port is experiencing a problem, and be able to focus your troubleshooting efforts on the cable or end node where the problem resides.

MissingLink

The MissingLink feature enables the two ports on the media converter to pass the "Link" status of their connections to each other. When the media converter detects a loss of connection to an end node, the media converter shuts down the connection to the other port, thus notifying the end node that the connection has been lost.

Key Features

- ▶ Half- and full-duplex operation
- ▶ Transparent to IEEE 802.1Q packets
- ▶ Rackmountable using optional AT-MCR12, AT-TRAY4 or AT-TRAY1 chassis
- ▶ Wallmountable using AT-WLMT
- ▶ Auto MDI/MDI-X
- ▶ MissingLink
- ▶ Link test
- ▶ RoHS compliant

PORT TYPE (CONNECTOR)	CABLE DISTANCE	OPTICAL FREQUENCY	LAUNCH POWER (dBm)			RECEIVE POWER (dBm)		
			MAXIMUM	AVERAGE	MINIMUM	MINIMUM SENSITIVITY	TYPICAL SENSITIVITY	SATURATION
100FX MMF (2 km)	2 km	1310nm	-14.0	-16.8	-19.0	-31.8	-34.5	-14.0
100FX MMF (2 km)	15 km	1310nm	-8.0	-11.5	-15.0	-31.0	-31.0	-8.0
100FX MMF (2 km)	40 km	1310nm	0.0	-3.0	-5.0	-35.0	-38.0	0.0
100FX SMF (15 km)	15 km	1310nm	-8.0	-11.5	-15.0	-31.0	-31.0	-8.0
100FX SMF (40 km)	40 km	1310nm	0.0	-3.0	-5.0	-35.0	-38.0	0.0

Technical Specifications

Status Indicators

Power:	Indicates power is applied to the converter
Link (2):	Indicates a valid receive link exists
Activity (2):	Indicates TX/RX on the port
FDX:	Indicates full-duplex operation (MC104XL only)
ML:	Indicates MissingLink

Switches

ML - link Test:	Enable MissingLink
A/N:	Enable auto-negotiation

Packet Transmission Characteristics

Round trip delay:	0.4µs maximum
Bit Error Rate (BER):	<10 ⁻¹²

Power Characteristics

External power supply	120V AC, 60Hz (US model) 240V AC, 50Hz (European models)
Input supply voltage	12VDC
Max current	500mA
Power consumption	6W

Environmental Specifications

Operating temperature	0°C to 40°C (32°F to 104°F)
Relative humidity	5% to 95% (non-condensing)
Storage temperature	-20°C to 80°C (-4°F to 176°F)
Operating altitude	0 to 10,000 feet

Physical Characteristics

Dimensions (W x D x H)	10.5 cm x 9.5 cm x 2.5 cm (4.12 in x 3.75 in x 1.0 in)
Weight:	294 g (10.4 oz)

Electrical/Mechanical Approvals

EMC	FCC Class A (MC104XL)
EMC	FCC Class B
Safety compliant	UL-Cul, CSA/CSA, NRTL, TUV, CE compliant

Ordering Information

AT-MC101XL-xx

UTP to multi-mode ST (2 km) fiber

AT-MC102XL-xx

UTP to multi-mode SC (2 km) fiber

AT-MC103XL-xx

UTP to single-mode SC (15 km) fiber

AT-MC103LH-xx

UTP to single-mode long-haul SC (40 km) fiber

AT-MC104XL-xx

Multi-mode fiber to single-mode SC (15km) fiber

Where xx = 10 for US power adapter
20 for European power adapter
30 for UK power adapter
40 for Australian power adapter
60 for multi-region power adapter, APAC only
90 for NA power adapter, TAA compliant

Associated Products

AT-TRAY1

Rackmounting tray for one media converter

AT-TRAY4

Rackmounting tray for up to four media converters

AT-WLMT

Wallmount bracket for one media converter

AT-MCR12

12-slot AC/DC powered chassis for media converters